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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/808,556 | 03/25/2004 | Shoichi Suzuki | 03500.018043. | 4762 |

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| EXAMINER | |
|---|---|
| WANG, KENT F | |

| ART UNIT | PAPER NUMBER |
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| 2622 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/808,556 | SUZUKI ET AL. | |
| | Examiner | Art Unit | |
| | KENT WANG | 2622 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/14/2009 has been entered.

### *Response to Amendment*

2. The amendments, filed on 01/14/2009, have been entered and made of record. Claims 1-2 and 8 have been amended. Claims 1-8 are pending.

### *Response to Argument*

3. Applicant's arguments with respect to independent claims 1 and 8 have been considered but are moot in view of the newly found prior art references.

### *Claim Rejections - 35 USC § 103*

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-6, and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi (US 2003/0090750) in view of Shimizu (US 6,862,039) and Kobori (US 5,146,323), and further in view of Ikeda (US 2003/0169348).

Regarding claim 1, Takahashi discloses an image pickup device (a digital still camera, DSC; [0052]) comprising:

- an imaging device (Fig 3 shows spectral sensitivity distributions of a typical CCD sensor, see [0057]);
- a storage unit (a memory 30, 31, Fig 6) that stores a plurality of correction values which correspond to a plurality of persons' skin colors, respectively ([0138]);
- a selection unit (skin color candidate detection section 18, Fig 1) that selects one of the plurality of persons' skin colors ([0076]-[0077]); and
- a white balance processing unit (white balance correction apparatus 10, Fig 1) that specifies a color detection range of skin color (the color temperature of the photographing light source estimated by the light source color temperature estimation device 12) on the basis of the correction value (optimizes the coefficients $\alpha_1$ and $\alpha_2$) which is stored in said storage unit and corresponds to the person's skin color selected by said selection unit (18) ([0074] and [0076]-[0077], Takahashi).

Takahashi does not disclose an instruction unit that instructs the selection of a given chromatic color area on a photography screen. However, Shimizu discloses an instruction unit (monitor 30, Fig 2) that instructs a given chromatic color area on a photography screen (the monitor 30 may have a touch panel whose desired area may be touched by the operator

to input settings and the pre-setting and one-push white balance wherein a particular area is designated in a captured image screen) (2:6-10, and 4:32-56, Shimizu).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to use the instruction unit as taught by Shimizu in the Takahashi' white balance apparatus, so as to enable the operator to finely adjust the color tone of a subject (1:61-2:10, Shimizu).

Takahashi and Shimizu do not disclose each of the correction values is information about a skin color axis for each of the plurality of different persons' skin colors which is stored in said storage unit. However, Kobori disclose each of the correction values (skin color reference signal) is information about a skin color axis for each of the plurality of different persons' skin colors which is stored in a storage unit (a white balance adjuster 122 for changing the amplitudes of the color signal and adjusting the color temperatures of the signals; as the control signal generating means 1104 compares the skin color signal which was extracted and averaged and the skin color reference signal selected by the switch 1105 and generates a control signal to the amplifiers 202 and 203, and the skin color reference signal generator 1106 generates a reference signal corresponding to the standard skin color and a plurality of skin color reference signal generators 1106 are provided and a desired reference value of the operator can be selected by the switch 1105 and by presetting the standard values such as "fair skin color", "sunburn skin color", and the like into the reference signal, it is possible to cope with various skin colors, Figs 8-11) (8:37-9:46, Kobori).

Thus, it would have been further obvious to one of ordinary skill in the art at the time this invention was made to use the white balance adjuster as taught by Kobori in the Takahashi

and Shimizu's apparatus, so as to enable the combination to provide a plurality of reference skin colors which can be obviously applied to various persons by changing the setting of the characteristics of the skin color extracting portion and the reference skin color signal (9:36-46, Kobori).

Takahashi, Shimizu, and Kobori do not disclose a white balance processing unit that specifies a color detection range of skin color on the basis of the skin color axis information, and conducts white balance processing in accordance with a white balance coefficient that corresponds to a color temperature of the light source obtained on the basis of the specified color detection range and an output signal of the imaging device representing a parameter of the selected given chromatic color area. However, Ikeda discloses a white balance processing unit (a WB circuit 6, Fig 1) that specifies a color detection range of skin color on the basis of the skin color axis information (skin detection axis), and conducts white balance processing in accordance with a white balance coefficient that corresponds to a color temperature of the light source obtained on the basis of the specified color detection range and an output signal of the imaging device representing a parameter of the selected given chromatic color area (output values from an image sensing element which has photographed the white color at arbitrary steps from a high color temperature to a low color temperature, and plotting the calculated values along two-dimensional axes) ([0033]-[0060], Fig 5, and [0088]-[0090], Ikeda).

Thus, it would have been further obvious to one of ordinary skill in the art at the time this invention was made to use the white balance circuit as taught by Ikeda in the Takahashi,

Shimizu and Kobori's apparatus, so as to enable the combination to always obtain accurate white balance regardless of photographing conditions ([0011], Ikeda).

Regarding claim 2, Takahashi discloses the white balance processing unit (10) calculates color evaluated values on the basis of the output signal of the image device (CCD sensor), and specifies the color detection range of the skin color on the basis of a color evaluated value that is judged to be included in a predetermined chromatic color detection area among the calculated color evaluated values (the light source color temperature computation section 24 computes the estimated value of the color temperature of the photographing light source from the average color temperature of the group of skin color candidate pixels) ([0099] and [0100]) (also see [0018] for a predetermined chromatic color detection area).

Regarding claim 3, Takahashi discloses an image pickup device the chromatic color of the predetermined chromatic color detection area is a person's skin color ([0020] and [0076]).

Regarding claim 4, Takahashi discloses the chromatic color detection area is generated on the basis of the difference between a color evaluated value of a predetermined skin color which corresponds to the color temperature of the light source and a color evaluated value of an actually photographed person's skin color (provide a method for density correction which is a technique for detecting an area of skin color out of an image to obtain an appropriate print density; [0018]) (estimating a color temperature of a photographing light source with which the color image has been taken and correcting image signals of the color image based on the estimated color temperature; [0019]).

Regarding claim 5, the limitations of claim 1 are taught above, Takahashi does not explicitly disclose an instruction unit comprises one of a touch panel and a visual line input.

Shimizu discloses an instruction unit comprises one of a touch panel (monitor 30) and a visual line input (function selection button 36 and decision button 38) (3:29-33 and 4:32-55, Shimizu).

Regarding claim 6, Takahashi discloses an image pickup device wherein the predetermined chromatic color detection area is selected from a plurality of areas (provide a method for density correction which is a technique for detecting an area of skin color out of an image to obtain an appropriate print density based on information on the area of skin color, in other word the area is selected from a plurality of areas) ([0018]).

Regarding claim 8, this claim differs from claim 1 only in that the claim 1 is an apparatus claim whereas claim 8 is a method. Thus the method claim 8 is analyzed and rejected as previously discussed with respected to claim 1 above.

6. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Shimizu, Kobori and Ikeda, and further in view of Wheeler (US 7,133,070).

Regarding claim 7, Takahashi as modified by Shimizu, Kobori, and Ikeda does not disclose the predetermined chromatic color detection area is selected on the basis of an input language that is inputted to the image pickup device by a photographer.

However, Wheeler discloses an input language (voice-actuated input) that is inputted to the image pickup device (a digital camera 300) by a photographer (the photofinisher) (see 13:51-14:6 and figure 8, Wheeler).

Takahashi, Shimizu, Kobori, Ikeda and Wheeler are analogous art because they are from the same field of endeavor for white balance processing in an image pickup device. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to

use Wheeler's voice-actuated input in the Takahashi, Shimizu, Kobori, and Ikeda's device for image processing. The suggestion/motivation would have been to enable the instruction unit to accept instructions by a variety of means (11:25-58, Wheeler).

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Sasaki (US 2004/0151370) provides a color processing method and a color processing apparatus for deciding a target color;
- Kuwata et al. (US 6,947,078) provide a color correction apparatus capable of carrying out appropriate color correction, a color correction method, and a recording medium having a color correction control program recorded;
- Hoshuyama (US 2003/0001958) discloses white balance sensor that is set at a position conjugate with the position of the image-capturing device relative to the exchangeable lens to receive the light from the subject image and outputs color signals;
- Fijimoto et al. (US 5,712,924) disclose color image is by an optical scanner for conversion into three primary color data corresponding to the respective densities of the three primary colors; and
- Katoh et al. (US 5,267,031) provide an image processing apparatus which can execute both of a process to extract characteristics or the like and a color converting process.

***Inquiries***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan V Ho/
Primary Examiner, Art Unit 2622

KW
23 March, 2009